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Experiencing Flow with Technology in Foreign Language Classrooms

Halil Rıfat Çelik
Asuman Aşık

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Research Article

Experiencing flow with technology in foreign language classrooms*

Halil Rıfat ÇELİK✉ ORCİD
Instructor, School of Foreign Languages, Ankara Yıldırım Beyazıt University, TURKIYE
Asuman AŞIK ✉ ORCİD
Associate Professor, Department of English Language Teaching, Gazi Faculty of Education, Gazi University, TURKIYE

Abstract

Information and communication technologies (ICT) used in education, particularly Web 2.0 tools, have become vital for today's language teaching environment. Learners and instructors employ these tools to enhance engagement and motivation in the classroom. Optimal experience and heightened focus associated with Web 2.0 tools align with the flow theory. This study explores the flow experience of English as a Foreign Language (EFL) learners and instructors while utilizing Web 2.0 tools and the factors influencing this experience. The Flow Short Scale and semi-structured interviews were employed for data collection. The findings indicate that EFL learners and instructors experienced flow while using Web 2.0 tools, and their perspectives on using these tools were revealed. Furthermore, the study emphasizes effectively integrating Web 2.0 tools into language lessons to enhance in-class flow experience and learning performance.

Introduction

Educational psychology is a separate branch that involves the principles of psychology and education and combines them to enhance the education process (Walberg & Haertel, 1992). It helps educators understand students' learning processes and find ways to raise classroom motivation. Understanding the learning process allows educators to design the lesson according to the students' needs, and raising motivation increases the students' involvement and performance in classrooms (Duchesne & McMaugh, 2016). This motivation can be experienced when the learners appreciate the activity and participate only to be involved (Ryan & Deci, 2000). In this regard, enjoyment and concentration can be experienced through flow.

The Flow Theory is described as the experience when people are so involved with the activity that they can ignore anything; they complete the activity only for pleasure or enjoyment, so they may even endure any possible hardship just for the sake of the movement (Csikszentmihalyi, 1997). The theory has been researched in many different fields, such as sports (Huang et al., 2018; Jackson, 1996; Kim & Ko, 2019), computer science (Trevino & Webster, 1992; Webster & Martocchio, 1993), advertisement (Smith & Sivakumar, 2004) and art and science (Csikszentmihalyi, 1996). In addition to those studies, in language education, Egbert (2004) found out that flow happens in language classrooms, and the activities and language tasks may be designed to create flow. The following language teaching studies also show classroom flow experience and aim to create better lessons for promoting this experience (Aubrey, 2017; Azizi & Ghonsooly, 2015; Guan, 2013; Kirchhoff, 2013). To get learners' attention and motivate them, the content and learning environment should be exciting and motivating (Csikszentmihalyi, 1997).

The term flow describes an intense concentration state while performing a task (Csikszentmihalyi, 1990). Flow experience shares some common characteristics. To name the concentration state as the flow, one should experience highly intense concentration on the task by losing the sense of self, feeling of controlling one's actions, losing the sense of time, and feeling of intrinsic motivation for the task (Csikszentmihalyi & Nakamura, 2014). To make flow emerge in a task, some preconditions should be provided. These preconditions can be summarized as (a) the balance between challenge and skills in a task, (b) participants' attention is focused on the task, (c) the participant thinks the task is exciting or authentic, and (d) the participants have a sense of control (Csikszentmihalyi, 1975; Csikszentmihalyi & LeFevre, 1989).

Flow and language teaching

Several studies have investigated the relationship between flow and language learning (Abbott, 2000; Egbert, 2004; Larson, 1988; Schmidt & Savage, 1992; Tardy & Snyder, 2004). The motivational nature of flow was found effective in language learning. Some researchers assert that extrinsic motivational elements (e.g., grades) reduce the positive effects of learners' intrinsic motivations (Schmidt & Savage, 1992; Dörnyei, 1994). In this regard, studies on flow focus on motivational elements of flow and its relationship between tasks while learning different language skills (Egbert, 2004).

In addition, some studies explored educators' perceptions of experiencing flow (e.g., Belce, 2019). As Egbert (2004) states, flow can be experienced in language classrooms, providing an exciting and helpful guide for creating and adapting learning activities. It could benefit educators to understand flow theory and benefit from it while preparing for their language

classes. To foster flow in language classrooms, Egbert (2004) suggests that (a) the goals of the tasks should be clear, (b) the level of challenge should meet the learners' skills, (c) tasks should be related to learners' interests, (d) there should be enough activity time and immediate feedback, (e) learners should have a sense of control over the given tasks, and (f) learners should be entirely concentrated on the tasks without any interruptions.
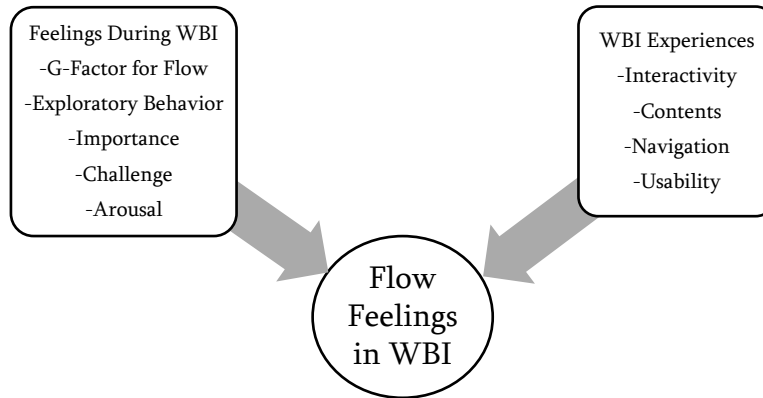
Flow and Web 2.0 tools

Web 2.0 tools have been widely used in learning environments to create a challenging, competitive, and collaborative classroom environment (Al-Kadi, 2018). Studies show that educators value the importance of ICT in teaching and have positive perspectives on using Web 2.0 tools (Al-Kadi, 2018; Başer Gülsoy, 2011; Öztürk, 2017). Moreover, these tools allow users to create their own system to practice the language subjects, design activities according to their levels, and boost motivation (Albayrak & Kıyıcı, 2017; Aşıksoy, 2018; Şahin Kızıl, 2015). Web 2.0 tools are among the essential components of this information age by meeting the needs of creating and sharing information with others in a fast way, visualizing and evaluating the data, and increasing motivation; educators in the 21st century have given importance to implementing these tools in their classes (Ajjan & Hartshorne, 2008; Grosseck, 2009; Kutlutürk & Akbayrak, 2013). Also, the recent developments in artificial intelligence (AI), machine learning (ML), and natural language processing (N.L.P.) have boosted the impact of Web 2.0 tools in language education, especially after the release of ChatGPT.

In second/foreign language teaching contexts, most language learners generally aim to (a) develop their listening skills by using Web 2.0 tools (Aşıksoy, 2018), (b) get familiar with the different accents of the target language (Duffy, 2009; Watkins & Wilkins, 2011) and (c) listen to the pronunciation of the vocabulary items. Studies indicate that these tools positively impact language learners by increasing their motivation and speeding up the learning process (Crook, 2008; Grant, 2016; Şahin Kızıl, 2015), creating an entertaining environment (Karaman et al., 2008; Thompson, 2007), turning the learning into a game-like experience for the learners (Çıldır & Koçak, 2022).

The relationship between flow and technology has been studied for decades. In one of the earliest studies, Rotto (1994) reviewed research articles to explore the relationship between curiosity, motivation, and flow in computer-based instruction (CBI). The studies state that developing a well-designed CBI lesson would improve learners' motivation, engagement, and flow experiences (Jones, 1998; Rotto, 1994). Although most of the studies were conducted under different majors, such as business, computer science, and marketing (Chen et al., 2000; Novak & Hoffman, 1997; Novak et al., 1999), they shed light on the relationship between flow and the Web by providing insights to explore flow more in the education field. Rha et al. (2005) showed the factors affecting learners' flow feelings in web-based instruction (WBI) environments and their relationship with WBI elements that the learners experience (Figure 1).

Figure 1. Optimal flow experience in web-based instruction (Rha et al., 2005)

With the abovementioned studies and arguments, there is a need to investigate the relationship between flow experience and Web 2.0 tools in a foreign language teaching context. To this end, this study aims to explore the flow experience of both instructors and learners in Web 2.0-based EFL classes in Türkiye. This allows the researcher to compare each side's experience regarding flow and Web 2.0 use in the same context. This study specifically explores the relationship between Web 2.0 tools and flow experiences in EFL classes at a state university in Türkiye from the perspectives of language learners and instructors.

1. To what extent do the instructors and learners use Web 2.0 tools in their EFL classrooms?
2. To what extent do the learners' and instructors' experience flow in Web 2.0-based EFL classes?
3. Is there any difference among learners in terms of the flow experience of students in EFL classrooms related to their English grades (a), daily use of the Internet (b), types of Web 2.0 tools (c), and anxiety levels (d)?

Methodology

Model of the research

The sequential explanatory research design was employed to describe the relationship between the use of Web 2.0 tools and the flow experiences of language learners and instructors in EFL classrooms in Türkiye. This type of research design requires initially collecting the quantitative data and then collecting the qualitative data to elaborate the results of the qualitative data (Creswell & Plano Clark, 2011).

Population and sample

The data were collected at a state university in Türkiye during the first term of the 2021-2022 academic year. To answer the research questions, the probability sampling method was used to select the participants. The total population of EFL learners at the state university is 860 from 27 classes. Nine EFL instructors and 140 EFL learners from a state university in Türkiye participated in the study (Table 1).

Table 1. Demographic information about the EFL learner participants

		Frequency	Percent
Age	19	1	,7
	20	70	50,0
	21	51	36,4
	22	17	12,1
	23	1	,7
	Total	140	100,0
Gender	Male	133	95,0
	Female	7	5,0
	Total	140	100,0

EFL learners had 4 hours of general English lessons with the same curriculum for each section. For their English classes, the students were allowed to use their laptops, and they could connect to the Internet via the Wi-Fi service provided by the institution. All the students had the same curriculum for the English lesson; the EFL instructors were selected from 9 sections to see the relation between students' flow experiences and the instructors' experiences in the same class. Most instructors were female and had 1-5 years of experience. Only one male instructor participated in the study, and he had ten years of experience in teaching. They were actively using the MOODLE-based platform of the institution. Besides this system, the instructors in this study also stated that they were implementing additional Web 2.0 tools in the language classes.

Data collection

Data collection procedures were carried out through both quantitative and qualitative methodology. The data collection process for each research question is summarized below in Table 2.

Table 2. Data collection process

Research Question	Data Collection Tool	Participants
Q1. Use of Web 2.0 Tools in EFL classes.	a. Semi-structured questions of the questionnaire	EFL instructors
	b. Interview Questions	EFL learners
Q2. Flow and Web 2.0 Tools	Flow Short Scale	EFL learners
	Semi-structured open-ended questions	EFL instructors
Q3. Factors Affecting Flow Experience of EFL Learners	Questionnaire	EFL learners

Instruments

Data were collected using a Flow Short Scale and semi-structured interview questions in two steps. The application to the Ethics Committee had been completed before starting the process. After getting permission from the Ethics Committee, the researchers began to collect data with the online version of the Flow Short Scale via the university's Moodle website.

For the quantitative data collection, the version of Flow Short Scale in Turkish (İşigüzel & Çam, 2014) was adapted to get more accurate and reliable data from the participants. Two different versions of the survey were implemented. Semi-structured open-ended questions were asked to participants to give more details on the quantitative data and better understand the participants' opinions about flow experiences with Web 2.0 tools in English language classes. The interview in this study is an adapted version of the one designed by Tardy and Snyder (2004). The participants completed the interview in Turkish to prevent any stress or anxiety resulting from the language barrier.

In this study, member checking and auditing were used to increase the credibility of the qualitative data analysis. One learner and instructor were asked to review the transcriptions and themes to improve accuracy. In this analysis, the inter-rater reliability was .90, which reflected that the raters agreed on the transcriptions' coding process (Gwet, 2014). The research advisor closely analyzed the qualitative data, transcriptions, coding, themes, and translations for this study. The interpretations were completed with the guidance of this analysis.

Data analysis

In this study, the quantitative data was first collected and analyzed, followed by qualitative data collection and analysis. The data was collected in two steps. For each stage, a consent form was collected from the participants. First, the questionnaire was applied to both participants via the Moodle platform. As it is suggested for the experience sampling method, the questionnaires were conducted immediately after using a Web 2.0 tool. The mean, minimum, maximum, and standard deviation scores for flow and anxiety factors in the scale were examined in terms of the descriptive side of the analysis. The researcher cleaned the missing data. The Cronbach's Alpha levels for flow-related items were .89, and for anxiety-related items, were .72, which indicates the things were reliable. Further analysis on SPSS showed that the data were distributed normally ($p > .05$). For the questions related to the flow experiences of the instructors and the students, inferential statistics (independent t-test and one-way ANOVA) were applied.

The interviews were done in face-to-face sessions and recorded. The whole data collection process took four weeks to complete. In the analysis of the interviews, a bottom-up frame was followed. In this 5-step frame, the data was collected, prepared for analysis, read thoroughly, and categorized under codes. Finally, the codes were used to discover the themes (Creswell, 2012). In this study, the researcher transcribed the interviews in this step. As the participants completed the interviews in Turkish as their preference, the related parts in the transcription were translated into English. Finally, after finishing the quantitative and qualitative data analysis, the results were compared to discover whether the results support or contradict each other. As Creswell (2012) suggests, this procedure provides more reliable data by using the strong sides of each research type. It results in a better understanding of the flow experiences of the participants.

Findings

RQ1. To what extent do the instructors and learners use Web 2.0 tools in their EFL classrooms?

Semi-structured questions in the questionnaire showed that all EFL instructors participating in this study use at least one Web 2.0 tool while teaching English and the following table (Table 3). summarizes the types of tools and their purposes.

Table 3. The use of Web 2.0 tools by the instructors

Participant	Whether using any Web 2.0 tools (a)	Which Web 2.0 tools used in the classroom (b)	For which purposes are the Web 2.0 tools used (c)
INS 1	Yes	Blogs and assessment tools	To increase interaction
INS 2	Yes	Assessment tools	To increase motivation
INS 3	Yes	Assessment tools	To assess students' knowledge
INS 4	Yes	Assessment tools	To evaluate students' knowledge and classroom management
INS 5	Yes	Assessment tools	To assess students' knowledge and for entertainment
INS 6	Yes	Assessment tools	To evaluate students' knowledge
INS 7	Yes	Assessment tools	To increase interaction and visualization, the subject
INS 8	Yes	Interactive tools	To increase interaction
INS 9	Yes	Assessment tools	To assess students' knowledge and to increase interaction

The qualitative data was analyzed to better comprehend the extent of Web 2.0 tools in EFL classrooms. Therefore, the interviews of instructors and learners were coded. The following figure shows the codes and themes of this analysis procedure.

Figure 2. Themes and codes on Web 2.0 use of EFL learners and instructors
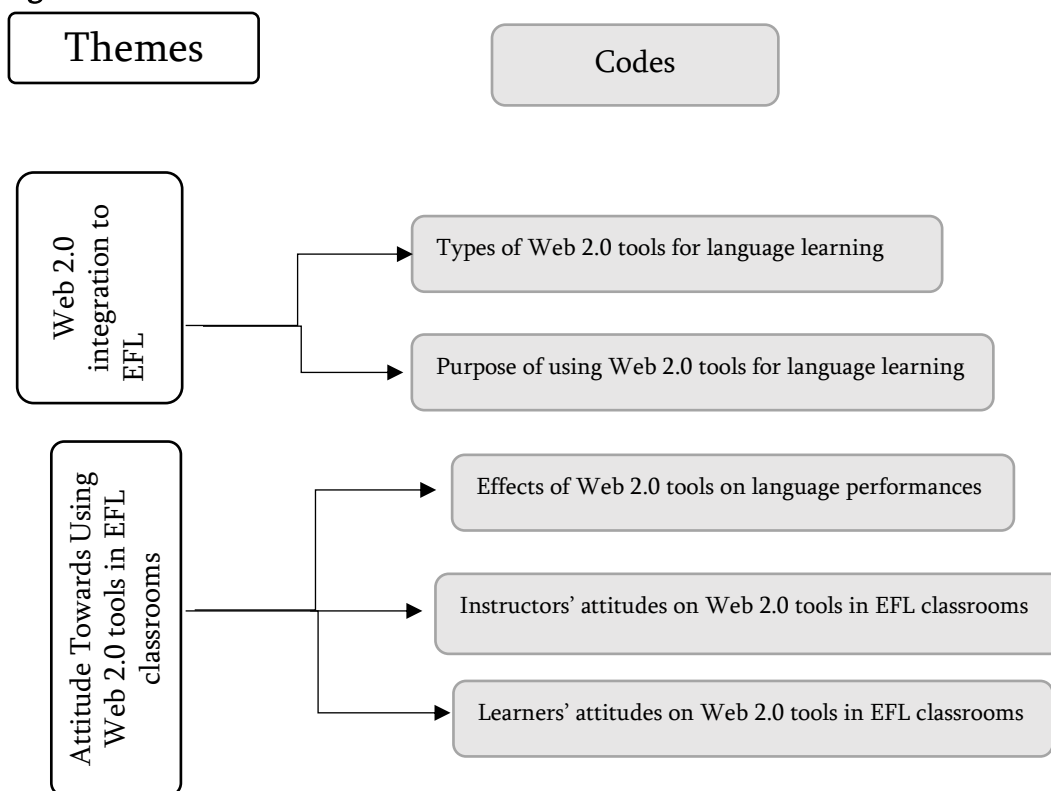
Integration of Web 2.0 tools to EFL classrooms

To begin with, all of the instructors stated that they were integrating at least one Web 2.0 tool in their EFL lessons. The most common Web 2.0 tools were video-sharing platforms (i.e., YouTube, Voscreen), online assessment tools (i.e., Quizizz, Kahoot), and brainstorming websites (i.e., Padlet, Mentimeter). Similarly, each EFL learner said they used at least one Web 2.0 tool for language learning. The tools were mostly related to video-sharing websites, streaming platforms (i.e., Netflix), online dictionaries, and language learning platforms (i.e., Duolingo, Cambly).

For the EFL instructors in this study, these tools were used for various reasons, commonly related to raising learners' motivation, increasing interaction, assessing knowledge, teaching different language skills, and brainstorming. Ins1 explained why they were integrating Web 2.0 tools in the EFL classrooms:

> *"Although one of the reasons for using Web 2.0 tools is enhancing the learning process, I think the first purpose is to break the monotonous pace of the lesson, to bring fresh air to the classroom."*

The EFL learners also stated that they were using Web 2.0 tools to raise their motivation by watching English movies and playing language games. They believe these tools help them raise their attention toward the lesson. L1 explained the tools as follows:

> *"Using technology is one of the things I believe the most. Especially, YouTube and applications such as 'Quizizz' get learners' attention".*

To elaborate on the motivational effect of the tools on the learners, L5 stated:

"I am using 'Duolingo' while learning English. For speaking practices, I am using 'Cambly' and watching videos on YouTube and Netflix. With these tools, learning becomes more fun".

The instructors use them to get learners' attention by using different tools to break the monotony during the lesson, sometimes only for fun. Similarly, the learners believe these tools help them focus on the lesson and enjoy learning through educational tools and watching movies on video streaming platforms.

Attitude toward using Web 2.0 tools in EFL classrooms

All of the instructors claimed that the tools positively affect the EFL classroom. The general belief on the effects was related to the motivation of the learners and the instructors. On this subject, Ins1 and Ins4 explained their ideas as follows:

"When I use them (Web 2.0 tools), I see the students' eagerness to participate in the lesson, increasing their motivation. I can see that. In this situation, I also enjoy the lesson. In general, they (Web 2.0 tools) present the students a different experience and bring fresh air into the classroom." Ins1
"The tools increase motivation. With them, the students become more alert to the activity. It (Web 2.0 tool) increases interaction in the classroom. I enjoy using especially the competitive and collaborative tools." Ins4

The instructors also mentioned that these tools allowed them to control the activity and the students better. Ins2 explained this control feeling: "It (Web 2.0 tool) helps me get attention and feel more control over the lesson". Similarly, Ins3 said, "*The tools create a chance for me to observe the classroom while they are working on the activity*."

In addition to teacher training on integrating the tools into the lesson, Ins5 also mentioned teacher training on learning the solutions for possible technical problems and choosing the appropriate content for the lesson. The following citations from the interviews may explain this subject better.

"Firstly, there may be technical problems while using the tools. When I have technical problems while using the tools, I just stop using them not to waste time. Secondly, there are millions of materials on these tools. We need to know how to choose the appropriate one for our class." Ins5
"I think that I do not have enough knowledge on how to use these tools in the classroom. Therefore, I have to prepare more before the lesson. When I am not ready, I feel more anxious. So, I think that teachers should get trained on how to use these tools in the classroom." Ins1

Like the instructors, all learners also stated that Web 2.0 tools positively affected the language learning process. The most common response to the effects was the convenience of the Web 2.0 tools. The learners claimed that the tools had limitless resources in the target language and were practical to reach.

"They are really useful tools. For example, Quizizz helps us evaluate our knowledge. We can see our strengths and weaknesses on the subject. With videos on YouTube, we can learn the pronunciation." L3

"It (Web 2.0 tool) should be used in the classroom as it provides visual and auditory materials for the subject. In this way, we can learn better. These tools help us learn step by step." L5

RQ2. To what extent do EFL learners and instructors experience flow in Web 2.0-based EFL classes?

The interviews were also analyzed to understand better the relationship between learners' flow experiences and Web 2.0 tool-based language lessons. With the analysis of the learners' interviews in line with this research question, the following theme and codes emerged (Figure 3)

Figure 3. Theme and codes on flow experience of EFL learners
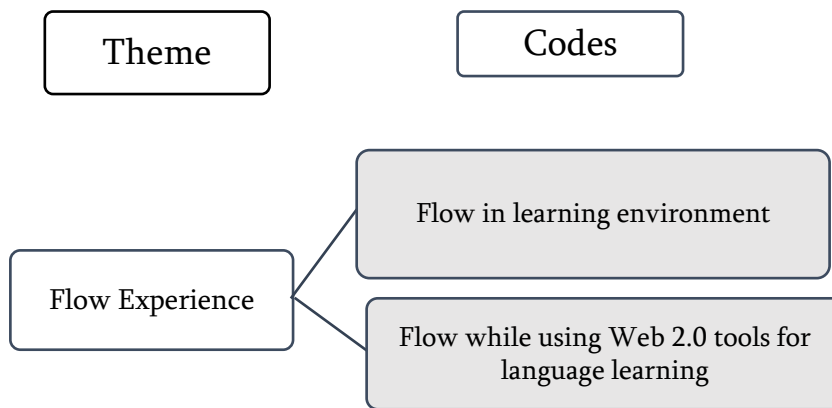
EFL learners pointed out that they experienced classroom flow for different reasons. The most common theme for this experience is related to learning new and vital subjects. Regarding using Web 2.0 tools and flow experience in language classrooms, the learners seemed more hesitant to present a direct relationship between these two factors. Most of them stated that they experienced flow while watching videos online via different platforms. Another factor for the experience with Web 2.0 tools was related to the instructors' aptitude for technology. L1 believes that if the instructors are good at adapting technology to the lesson, he can enjoy the lesson and feel motivated.

The interviews with the instructors gave a deeper understanding of their flow experiences. For the flow experience in classrooms, all instructors stated that they experienced it. The conditions for flow experience vary individually, but the most common stimulant for flow experience was interaction in the classroom. For the instructors experiencing flow with Web 2.0 tools, the most common factor was changing the role of the teacher into a facilitator or observer and making the lesson more student-centered.

"Of course, I experience flow with Web 2.0 tools because the students and I enjoy them, especially the interactive ones. However, the students should have the necessary equipment with them. I think this is the only condition." Ins4

Most teachers state that they and their students enjoy using Web 2.0 tools in language classrooms. They feel motivated and participate in the activity. Moreover, the tools allow them to observe the students closely and be facilitators. As for the opposite idea, one instructor stated that the flow experience is mainly related to the class interaction and the students' reactions instead of Web 2.0 tools. However, these tools create more chances to foster student interaction and lead to highly motivated learners.

To understand the flow experiences of the EFL instructors, the items in the flow short scale (FSS) were analyzed via SPSS. The mean value for the flow items in the scale was 5.0 out of a seven-point Likert scale. For the instructors experiencing flow with Web 2.0 tools, the most common factor was changing the role of the teacher into a facilitator or observer and making the lesson more student-centered. The conditions for flow experience vary individually, but it can be seen that the most common stimulant for flow experience was interaction in the classroom.

> *"I definitely have similar experiences to this. Sometimes, my students warn me about the time. I also heard them saying they did not understand how the lesson finished. So, I can say that my students and I sometimes experience flow. Generally, I experience it when there is an interaction in the classroom between my students and me." Ins1*
>
> *"When I prepare materials and activities before the lesson, I feel highly motivated and eager to do them in the class." Ins3*
>
> *"When I teach grammar, I have this experience because it is just giving the content, asking some questions, and showing the structure. I do not understand how time passes in these lessons. I also have experience when I grade students' papers. However, the learners' language skills must be above a certain level." Ins4*
>
> *"Of course, I experience flow with Web 2.0 tools because the students and I enjoy them, especially the interactive ones. However, the students should have the necessary equipment with them. I think this is the only condition." Ins4*

On the contrary, one instructor states that the flow experience is mainly related to the class interaction and the students' reactions instead of Web 2.0 tools.

RQ3. Are there any differences among EFL learners in terms of the flow experience of students in EFL classrooms related to EFL learners' English grades (a), learners' daily use of the Internet (b), the types of Web 2.0 tools that the learners use (c), and anxiety levels (d)?

The questionnaires for both the learners and the instructors include open-ended questions. The learners' questionnaires aimed to find out whether there is a statistical difference between their flow experiences and their English grades from the previous academic year: (a) their daily use of the Internet per day, (b) the types of Web 2.0 tools they use, and (c). The data were transferred into the SPSS program and analyzed.

EFL learners' English grades and flow Experience relation

Initially, the results were categorized according to the learners' success in the target lesson. This was decided by considering the university's grading system in which the data was

collected. Concerning this, the participants were categorized under three headings: 70 and less (1), between 71 and 79 (2), and 80 and above (3). As 70 is the lowest score for an academically accepted grade to be successful in the lesson, it was chosen to determine one of the groups. The number of participants in each group and their flow mean scores are presented in Table 4 below.

Table 4. The flow mean scores according to the academic success of the EFL learners

English Scores	N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
70 and less	33	3,6091	1,22203	,21273	1,30	5,70
71-79	40	3,8225	1,05332	,16654	1,70	6,20
80 and above	67	4,3149	1,29149	,15778	1,70	6,80
Total	140	4,0079	1,24103	,10489	1,30	6,80

The results of ANOVA revealed a statistically meaningful difference between the groups (F=4.41, df=2.147, p=0.01). Therefore, Tukey's post hoc test analysis was applied to understand which groups differed (Table 5).

Table 5. Multiple Comparisons
Tukey HSD

(I) INGNOTKTG3	(J) INGNOTKTG3	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
70 and less	71-79	-,21341	,28495	,735	-,8886	,4618
	80 and above	-,70583[*]	,25769	,019	-1,3164	-,0952
71-79	70 and less	,21341	,28495	,735	-,4618	,8886
	80 and above	-,49243	,24211	,108	-1,0661	,0812
80 and above	70 and less	,70583[*]	,25769	,019	,0952	1,3164
	71-79	,49243	,24211	,108	-,0812	1,0661

[*]. The mean difference is significant at the 0.05 level.

Tukey's test revealed a significant difference between groups 1 (70 and less) and 3 (80 and above), with flow mean scores of 3.6 and 4.3.

The types of Web 2.0 tools that the learners use

The EFL learners in this research study stated that they were using various Web 2.0 tools for language learning as they found the tools beneficial for their progress in English. After coding the answers for the types of Web 2.0 tools, namely "educational web tools, social media, online dictionaries, and others," the relation between flow experience and the types of tools was analyzed with a one-way ANOVA test. The number of learners and the mean scores according to the Web 2.0 tools were illustrated in the table (Table 6).

Table 6. Frequencies of the types of Web 2.0 tools used by EFL learners

| | Responses | | |
Types of Web 2.0 Tools	N	Percent	Percent of Cases
Educational Web Tools	33	21,2%	27,5%
Social Media	79	50,6%	65,8%
Online Dictionary	15	9,6%	12,5%
Others	29	18,6%	24,2%
Total	156	100,0%	130,0%

a. Group

A one-way ANOVA test was applied to see whether there was a statistical difference between the types of Web 2.0 tools and the flow experience of the participants. The results showed no significant difference between the Web 2.0 tools types and flow experiences (F=.546, df=3, p=.652).

Anxiety levels of EFL learners

The last three items of the Flow Short Scale were used to measure the participants' anxiety levels. To understand whether there is a statistically meaningful difference between these two factors, a one-sample T-test was run on the 140 EFL learners' data. The flow mean score for the EFL learners was 4.0, and the anxiety mean score was 3.64. Moreover, the test showed a meaningful statistical difference (p < .05).

Discussion

This study found that the EFL instructors were aware of the importance of ICT tools in language education and used Web 2.0 tools in their language classrooms as a part of the language teaching process. As in Albion's study (2008), language teachers care about ICT and try to adapt Web 2.0 tools to their language lessons. It is clear that the language instructors, including the ones who participate in this study, believe that Web 2.0 tools create more interaction in the classroom by helping the learners create a product, which results in high motivation and information (Huffman, 2017; Lu et al., 2010). For the instructors, it can be understood that the most common factor of flow experience is losing track of time. The interviews show that the instructors feel more concentrated and motivated when they are teaching a subject that they are highly familiar with. This causes another flow factor, the sense of control, leading to better classroom management and monitoring of the learners' performances.

Moreover, flow is experienced primarily during teacher-student interaction in the classroom. In addition to these purposes, 11% of the EFL instructors used Web 2.0 tools for classroom management, visualizing the materials, and only entertainment elements. Like the learners, language instructors find lessons based on these tools more entertaining than conventional lessons (Karaman et al., 2008; Thompson, 2007).

Parallel to the related studies in the literature, it can be stated that EFL instructors use Web 2.0 tools in their language classrooms for motivation boosts, increase interest in the subject, and practice activities on language skills (Barrot, 2016; Grant, 2016; Ke & Cahyani, 2014). Like

Kumar and Vigil's (2011) statement, teachers were eager to implement Web 2.0 technologies in their classrooms. Moreover, the tools are used to teach and practice different language skills in the lesson by creating a more communicative classroom environment (Kavaliauskienė & Anusienė, 2009; Özel, 2013). Raising the motivation in the classroom was the most common reason for the instructors. This result parallels the idea that the game elements in these tools create more flow in learners and improve their performances (Admiraal et al., 2011). This finding matches with the literature as it shows that learners use the tools to access information easily (Rahimi et al., 2015) and shape their learning methods with them (Cochrane, 2014). As Shishkovskaya and Sokolava (2015) stated, learners believe that these tools provide a variety of resources in the target language and can benefit from them to improve their communication skills.

Instructors emphasized the importance of Web 2.0 training. This corresponds with the previous studies, which state the importance of being competent in integrating the tools in the classroom effectively (Smith & Dobson, 2011). As the previous studies show (Alayyar, 2011; Koehler & Mishra, 2005), with enough training, instructors believe that they become more confident about finding the correct tool for their classes to use productively. Moreover, two instructors (Ins1 and Ins5) stated that they would feel more anxious when they did not know enough about the Web 2.0 tools they used. These findings match the previous studies regarding teachers' lack of confidence in implementing the tools to the lesson (Göktaş et al., 2009).

Similarly, EFL learners have positive attitudes towards Web 2.0 tools in language learning. As mentioned above, they believe these tools have constructive effects on their language-learning process. As Aşıksoy (2018) revealed, language learners mostly use tools to develop their listening skills. YouTube and social media are among the most popular Web 2.0 tools in this subject (50.6%), and with it, learners can watch videos in different accents of the target language (Duffy, 2009; Watkins & Wilkins, 2011). While watching a movie or TV series in the target language, the learners seem highly motivated and lose themselves in the activity. In entertaining language activities, the learners feel a sense of control and tend to interact with them (Amini et al., 2016). This may be interpreted as the importance of the lesson design on learners' motivation. Enjoyment and intrinsic motivation lead to flow experience and high performance (Csikszentmihalyi, 1990, 1997). They are using different tools for this process. Among the learners in this study, 21.2% of them are using educational tools such as Quizizz or Kahoot; 50.6% use Social Media tools (i.e., Instagram); 9.6% use online dictionaries, and 18.6% of them use different tools such as Netflix, YouTube, and Grammarly.

For the EFL instructors' flow experience, the mean value for the flow items in the scale was 5.0. This can be interpreted as the EFL instructors feeling flow while implementing Web 2.0 tools in EFL classrooms. This finding supports the previous studies regarding flow experience in language classrooms (Egbert, 2004; Tardy & Snyder, 2004). In addition, this result also supports the idea that flow and Web 2.0 tools have a positive correlation. Similar to the marketing studies proving the relationship between Web use and flow experience (Chen et al., 2000), the amusing features of the tools may lead to flow in language classrooms. As the previous studies stated, a high motivation level helps learners participate more in language activities (Deci & Ryan, 1985; Sternberg, 2002). It can be understood that they felt motivated and concentrated on integrating the tools. Jones (1998) stated that a computer-based learning environment may lead to higher motivation and participation in the classroom and flow experience.

The learners with higher academic scores experienced more flow (4.3 mean score) than those with low grades (3.6 mean score) in English. This can be linked to the students' levels in English and the demands of the language task they were assigned. Egbert (2004) explained that for the flow experience in language classrooms, the tasks should have clear goals, and the level of challenge should be appropriate for the learners' language skills. Thus, the challenge and the skills balance were provided for the high achievers in the classroom. Moreover, from the T-test, it can be understood that there was a statistically meaningful difference between anxiety levels and flow experiences of the EFL learners in correlation to their English scores (F=.535, df=98, p=.01). This can be interpreted as EFL learners who had higher English scores may feel less anxious about the lessons.

In contrast, the less successful learners felt more anxious. Furthermore, it is the same for their flow experiences. More successful learners in English had more flow experience, while the less successful ones had less. As Allison and Duncan (1988) revealed, flow experience and anxiety are inversely related, and to increase learners' performance, anxiety should be reduced (Dörner et al., 2016). Therefore, teachers must balance the task's demands and learners' language skills to provide a classroom flow experience (Shernoff et al., 2014).

Conclusion

The main objective of this study was to find out the relationship between flow experience and using Web 2.0 tools in university EFL language classrooms. Web 2.0 tools have been widely implemented in language courses, especially in the last decade. The effects of using these tools have been examined in various aspects. This study reveals a positive correlation between using Web 2.0 tools in language classrooms and the flow experiences of EFL language learners and instructors in a university. It is clear that university EFL learners are aware of these Web 2.0 tools and use them for different purposes in language learning. This study reveals that these tools increase the learners' intrinsic motivation toward practicing the language. As Egbert (2004) suggests, designing the language tasks to promote a flow experience in the classroom would increase the learners' participation and their language performances. Therefore, it may be helpful for educators to adapt these tools to their language lessons to increase the flow experience of the learners and the interaction in the classroom. These flow experiences of learners are not affected by time spent on daily internet use or the type of Web 2.0 tools; however, learners' academic success may affect their flow experiences. This may relate to the anxiety level of the students. More successful students tend to experience more flow, while others feel anxiety and less flow in the classroom. Language instructors are familiar with the tools used for language teaching, and they implement them in their language classrooms. They believe that these tools help motivate the students and increase the interaction in the classroom. Nevertheless, training educators on how to use Web 2.0 tools effectively in the classroom may be essential. From this study, training on designing a Web 2.0-based language lesson for EFL instructors would be beneficial for increasing both instructors' and learners' performances in the classroom.

This study investigated the relationship between Web 2.0 tools and the flow experiences of university EFL learners and instructors. The study was limited to a particular context and participants with similar demographic backgrounds. Further research is needed to discover the differences among more diversified learner groups, younger learners, and language teachers. In

addition, the flow experience can be linked to other language skills and components for further investigation.

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